

## EAST Search History

| Ref # | Hits | Search Query  | DBs                           | Default Operator | Plurals | Time Stamp       |
|-------|------|---|-------------------------------|------------------|---------|------------------|
| L1    | 9    | (transmit\$4 with (inactive near3 (carrier\$1 or sub\$1carrier)))"clm."                                     | US-PGPUB                      | OR               | ON      | 2007/11/26 10:20 |
| S1    | 4    | (OFDM or (orthogonal near3 frequency)) same (inactive with carrier\$1)                                      | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2007/11/21 10:12 |
| S2    | 59   | (OFDM or (orthogonal near3 frequency)) and ((in\$1active or unuse\$1) with carrier\$1)                      | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2002/10/28 13:54 |
| S3    | 30   | (OFDM or (orthogonal near3 frequency)) and ((in\$1active or unuse\$1) with bin\$1)                          | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2002/10/28 13:33 |
| S4    | 17   | (OFDM or (orthogonal near3 frequency)) and ((inoperative or idle) with carrier\$1)                          | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2002/10/28 15:38 |
| S5    | 350  | (OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))                     | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2002/10/28 16:47 |
| S6    | 7    | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 370/204.ccls. | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2002/10/28 16:13 |
| S7    | 0    | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 370/205.ccls. | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2002/10/28 16:13 |
| S8    | 18   | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 370/208.ccls. | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2002/10/28 16:13 |
| S9    | 22   | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 370/210.ccls. | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2002/10/28 16:13 |
| S10   | 0    | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 370/281.ccls. | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2002/10/28 16:13 |
| S11   | 5    | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 370/344.ccls. | US-PGPUB; USPAT; EPO; DERWENT | OR               | ON      | 2002/10/28 16:13 |

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|     |    |   |                               |    |    |                  |
|-----|----|---|-------------------------------|----|----|------------------|
| S12 | 2  | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 370/436.ccls.   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:14 |
| S13 | 8  | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 370/478.ccls.   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:14 |
| S14 | 12 | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 370/480.ccls.   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:14 |
| S15 | 1  | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 370/481.ccls.   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:14 |
| S16 | 0  | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 455/66.ccls.    | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:14 |
| S17 | 0  | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 455/143.ccls.   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:14 |
| S18 | 0  | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 455/137.ccls.   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:15 |
| S19 | 0  | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 455/139.ccls.   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:15 |
| S20 | 0  | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 455/192.1.ccls. | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:15 |
| S21 | 0  | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 455/273.ccls.   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:15 |
| S22 | 0  | ((OFDM or (orthogonal near3 frequency)) and (differential with (encod\$4 or modulat\$4))) and 455/275.ccls.   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:15 |
| S23 | 9  | (OFDM or (orthogonal near3 frequency)) and (TII)  | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2002/10/28 16:58 |

## EAST Search History

|     |     |   |  |    |    |                  |
|-----|-----|---|--|----|----|------------------|
| S24 | 4   | ("5787123"   "5796785"   "5850605"   "5946293").PN.   | USPAT                                  | OR | ON | 2002/10/28 16:51 |
| S25 | 3   | ("5483686"   "5483690"   "5692016").PN.   | USPAT                                  | OR | ON | 2002/10/28 16:53 |
| S26 | 2   | TII with (in\$1active or unuse\$1) with carrier\$1  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 15:25 |
| S27 | 2   | TII same (in\$1active or unuse\$1) with carrier\$1  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/28 17:00 |
| S28 | 6   | ((OFDM or (orthogonal near3 frequency)) and (DAB or (satellite\$1 with broadcast\$3))) and TII  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/29 12:52 |
| S29 | 439 | (OFDM or (orthogonal near3 frequency)) and (DAB or (satellite\$1 with broadcast\$3))  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/29 13:01 |
| S30 | 7   | ((OFDM or (orthogonal near3 frequency)) and (DAB or (satellite\$1 with broadcast\$3))) and ((unuse\$1 or in\$1active or idle) with carrier\$1)                  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 13:38 |
| S31 | 79  | (OFDM or (orthogonal near3 frequency)) and ((unuse\$1 or in\$1active or idle) with (bin\$1 or carrier\$1))  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 15:10 |
| S32 | 31  | (OFDM or (orthogonal near3 frequency)) and (fill\$3 with (bin\$1 or carrier\$1))  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 15:45 |
| S33 | 8   | (OFDM or (orthogonal near3 frequency)) and (pad\$4 with (bin\$1 or carrier\$1))   | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 15:34 |
| S34 | 522 | (OFDM or (orthogonal near3 frequency)) and ((insert\$3 or fill\$3 or pad\$4 near3 zero\$1) with (bin\$1 or tone\$1 or frequenc\$3 or channel\$1 or carrier\$1)) | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 15:49 |

## EAST Search History

|     |      |   |  |    |    |                  |
|-----|------|---|--|----|----|------------------|
| S35 | 7    | (OFDM or (orthogonal near3 frequency)) and (((insert\$3 or fill\$3 or pad\$4) near3 zero\$1) same (in\$1active or un\$1active or idle or unuse\$1 or left\$1over or remain\$3 or in\$1operative) same (bin\$1 or tone\$1 or frequenc\$3 or channel\$1 or carrier\$1))                 | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 15:54 |
| S36 | 2    | (OFDM or (orthogonal near3 frequency)) and (((insert\$3 or fill\$3 or pad\$4) with TII) same (in\$1active or un\$1active or idle or unuse\$1 or left\$1over or remain\$3 or in\$1operative) same (bin\$1 or tone\$1 or frequenc\$3 or channel\$1 or carrier\$1))                      | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 15:56 |
| S37 | 3    | (OFDM or (orthogonal near3 frequency)) and (((insert\$3 or fill\$3 or pad\$4) with (id\$1 or identifier\$1)) same (in\$1active or un\$1active or idle or unuse\$1 or left\$1over or remain\$3 or in\$1operative) same (bin\$1 or tone\$1 or frequenc\$3 or channel\$1 or carrier\$1)) | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 17:10 |
| S38 | 177  | (OFDM or (orthogonal near3 frequency)) and (zero\$1 same (in\$1active or un\$1active or idle or unuse\$1 or left\$1over or remain\$3 or in\$1operative) same (bin\$1 or tone\$1 or frequenc\$3 or channel\$1 or carrier\$1))  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 17:13 |
| S39 | 60   | ((OFDM or (orthogonal near3 frequency)) and (zero\$1 same (in\$1active or un\$1active or idle or unuse\$1 or left\$1over or remain\$3 or in\$1operative) same (bin\$1 or tone\$1 or frequenc\$3 or channel\$1 or carrier\$1))) and "370"/\$.ccls.                                     | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2002/10/30 17:14 |
| S40 | 3165 | ((unuse\$1 or inactive) with carrier\$1)  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2003/04/16 08:35 |
| S41 | 65   | ((((unuse\$1 or inactive) with carrier\$1)) and ofdm  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2003/04/16 10:52 |
| S42 | 4    | (((unuse\$1 or inactive) with carrier\$1) same power) and ofdm  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2003/04/16 10:53 |

## EAST Search History

|     |     |  |                               |    |    |                  |
|-----|-----|--|-------------------------------|----|----|------------------|
| S43 | 2   | TII same ((inactive or unuse\$1) near3 carrier\$1)   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2003/09/09 14:15 |
| S44 | 5   | (transmitter with (id or identif\$7)) same ((inactive or unuse\$1) near3 carrier\$1)                             | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2003/09/09 14:14 |
| S45 | 2   | ((transmitter with (id or identif\$7)) same ((inactive or unuse\$1) near3 carrier\$1)) and ofdm                  | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2003/09/09 14:14 |
| S46 | 10  | TII and ofdm   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2003/09/09 14:16 |
| S60 | 233 | (OFDM or (orthogonal near3 frequency)) and ((in\$1active or null or un\$1use\$1) near3 (tone or carrier\$1))     | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2005/03/03 16:22 |
| S61 | 16  | (OFDM or (orthogonal near3 frequency)) and TII   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2005/03/03 16:22 |
| S62 | 235 | \$2ofdm and ((in\$1active or un\$1use\$1 or null or idle) near3 (carrier or tone or bin))                        | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2005/03/04 11:15 |
| S64 | 502 | \$2ofdm and dab  | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2005/03/04 11:11 |
| S65 | 416 | S64 and carrier  | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2005/03/04 11:12 |
| S66 | 169 | S65 and "370"/\$.ccls.   | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2005/03/04 11:12 |
| S67 | 490 | ((in\$1active or un\$1use\$1 or null or idle) near3 carrier) same (sender or transmit\$4 or source)              | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2005/03/04 11:16 |
| S68 | 382 | ((orthogonal near3 frequency) or ofdm) and ((un\$1use\$1 or in\$1active or null or idle) with (carrier or tone)) | US-PGPUB; USPAT; EPO; DERWENT | OR | ON | 2005/07/20 17:19 |

## EAST Search History

|     |     |   |  |    |    |                  |
|-----|-----|---|--|----|----|------------------|
| S69 | 163 | S68 and "370"/\$.ccls.  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2005/07/21 16:41 |
| S70 | 382 | ((orthogonal near3 frequency) or ofdm) and ((un\$1use\$1 or in\$1active or null or idle) with (carrier or tone))        | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2005/07/21 16:57 |
| S71 | 179 | S70 and "375"/\$.ccls.  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2005/07/22 12:12 |
| S72 | 382 | ((orthogonal near3 frequency) or ofdm) and ((un\$1use\$1 or in\$1active or null or idle) with (carrier or tone))        | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2005/07/22 13:36 |
| S73 | 11  | S72 and tii   | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2005/07/22 12:12 |
| S74 | 3   | ("5726978"   "5818872"   "6411662").PN.   | US-PGPUB;<br>USPAT;<br>USOCR           | OR | ON | 2005/07/22 12:23 |
| S78 | 394 | ((orthogonal near3 frequency) or ofdm) and ((un\$1use\$1 or in\$1active or null or idle) with (carrier or tone or bin)) | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2005/07/22 13:36 |
| S79 | 61  | S78 and 370/204,205,208,210.cccls.  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2005/07/22 13:40 |
| S80 | 190 | (OFDM or (orthogonal near3 frequency)) same ((inactive or unuse\$1) with (tone or carrier\$1))                          | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/21 10:33 |
| S81 | 344 | (OFDM or (orthogonal near3 frequency)) and ((inactive or unuse\$1) with (tone or carrier\$1))                           | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/21 10:34 |
| S82 | 291 | (OFDM or (orthogonal near3 frequency)) and ((inactive or unuse\$1) near3 (tone or carrier\$1))                          | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/21 11:06 |
| S83 | 137 | S82 and "370"/\$.ccls.  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/21 11:27 |

## EAST Search History

|     |      |  |  |    |    |                  |
|-----|------|--|--|----|----|------------------|
| S84 | 4659 | ((inactive or unuse\$1 or un-use\$1 or dummy or idle) near3 (tone or carrier\$1 or sub\$1carrier))   | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/21 11:43 |
| S85 | 438  | (insert\$3 or transmit\$4 or send\$3) with ((inactive or unuse\$1 or un-use\$1 or dummy or idle) near3 (tone or carrier\$1 or sub\$1carrier))                              | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/26 06:51 |
| S86 | 145  | S85 and "370"/\$.ccls.   | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/21 11:44 |
| S87 | 59   | (insert\$3) with ((inactive or unuse\$1 or un-use\$1 or dummy or idle) near3 (tone or carrier\$1 or sub\$1carrier))  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/23 10:47 |
| S88 | 1584 | (insert\$3 or transmit\$4 or send\$3 or transmission) with ((inactive or unuse\$1 or un-use\$1 or dummy or idle) near3 (tone or carrier\$1 or sub\$1carrier or frequency)) | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/26 07:47 |
| S89 | 224  | S88 and ofdm   | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/26 07:29 |
| S90 | 709  | S88 and @ad<"20000917"   | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/26 07:48 |
| S91 | 199  | S90 and "370"/\$.ccls.   | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/26 07:50 |
| S92 | 383  | (insert\$3 or transmit\$4 or send\$3 or transmission) with ((inactive or unuse\$1 or un-use\$1 or dummy or idle) near3 (carrier\$1 or sub\$1carrier))                      | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/26 10:19 |
| S93 | 188  | S92 and @ad<"20000917"   | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/26 07:48 |
| S94 | 56   | S93 and ("370"/\$.ccls. or "455"/\$.ccls)  | US-PGPUB;<br>USPAT;<br>EPO;<br>DERWENT | OR | ON | 2007/11/26 07:50 |